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# Before the FEDERAL COMMUNICATIONS COMMISSION Washington, D.C. 20554

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In the Matters of

Rulemaking to Amend Part 1 and Part 21 of the Commission's Rules to Redesignate the 27.5 -29.5 GHz Frequency Band and to Establish Rules and Policies for Local Multipoint Distribution Service:

Applications for Waiver of the Commission's Common Carrier Pointto-Point Microwave Radio Service Rules:

Suite 12 Group Petition for Pioneer's Preference

University of Texas - Pan American Petition for Reconsideration of Pioneer's Preference Request Denial CC Docket No. 92-297

RM-7872; RM-7722

PP-22

To: The Commission

#### COMMENTS

NYNEX Mobile Communications Company, by its attorneys, on behalf of its operating subsidiaries and partnerships in which it holds an interest ("NMCC"), submits its comments in response to the Commission's Notice of Proposed Rulemaking ("NPRM"), released January 8, 1993, in the above-captioned proceeding.

#### I. INTRODUCTION

NYNEX Mobile Communications Company (NMCC) provides wireless telecommunications services in markets throughout the Northeast. We have seen consumer interest in wireless voice service spark a

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consumer desire for wireless data services, and we believe that the wireless market will naturally evolve into a demand for wireless video services. Thus, NMCC supports the Commission's proposal to reallocate the 28 GHz spectrum band from point-to-point microwave service to a local multipoint distribution service ("LMDS").

### II. LWDS OFFERS THE ABILITY TO INTRODUCE NEW BROADBAND SERVICES

NMCC supports the Commission's decision to permit a multitude of new services to use the 28 GHz band, including video programming so that the full range of wireless broad-band services can be expeditiously brought to the public.<sup>2</sup>

Such flexibility recognizes that public needs vary from market to market. In some markets the public need for video programming will be paramount. In other areas, wireless broadband services, video-conferencing, or telemedicine may fill the public's needs.

NPRM, para. 1. The Commission notes the current underutilization of the band. NPRM, para. 14. Given the rapid emergence of new spectrum technologies, the FCC is wise not to allow this valuable resource to lie fallow.

The Commission proposes to allocate the 28 GHz band to any video or telecommunications use on either or both the vertical and horizontal polarization planes of the assigned frequency. NPRM, Para. 16.

NMCC has numerous emergency medical services using wireless voice communications to receive medical guidance in those critical minutes from accident to hospital. Wireless telemedicine, video and wireless data services would undoubtedly result in the implementation of other life saving emergency procedures utilizing these new technologies.

Suite 12, the initiator of this Rulemaking, has developed a service for the presentation of video images which, according to press releases, is of sufficient fidelity to render CATV grade pictures to the home. The underlying technology involves the dissemination over-the-air of signals emanating from antennas deployed in cellular arrays. At 6-12 miles in diameter, these cells are much larger than those employed in urban areas such as the New York MSA by cellular carriers using 850 MHz spectrum. Furthermore, the polarization techniques used by Suite 12 to control co-channel interference are quite different from those used by cellular telephony providers, regardless of the access architecture (AMPS, TDMA, CDMA) they employ. Finally, the concept of mobile hand-off, so central to the commercial success of cellular telephony, is not implemented in Suite 12's service. It is geared to the provision of a cost effective substitute for CATV services and presumes that the user will be stationary.

NMCC believes that this spectrum could also be used to provide customers with mobile video services as well as fixed video services. In order to provide mobile video, the spectrum at issue in this NPRM could be used for video services which do not require large cell structures. For example, the RF signals could emanate from small antennas placed in close proximity to the user, say within 200 meters, as part of a mobile broad-band wireless offering. Hand-off capability could be implemented in such a system. Technical publications reveal that systems that would make such service possible are currently under development.

Reallocation of LMDS frequency and the subsequent market demand created could provide the needed impetus to bring these systems to market.

# III. THE COMMISSION'S ALLOCATION SHOULD FOSTER FACILITIES BASED COMPETITION

NMCC supports the Commission's proposal to license two blocks of 1000 MHz each to two different carriers. As the Commission notes the only equipment available today, the Suite 12 patented technology, requires large blocks of spectrum for video service. A dual licensee structure would achieve the Commission's goal to enhance competition. The LMDS licensees can be expected to compete vigorously with each other and with CATV providers and with a host of other image service providers such as broadcast TV. In addition, the two licensee per market structure has worked very well in cellular service to afford adequate spectrum for a viable service offering, to encourage rapid build-out of systems, and to foster intense competition.

NPRM, para 20.

The Commission's proposal for a channelization plan of 20 MHz each will provide carriers with enough spectrum to develop a truly viable video system that can compete with cable-TV providers, while allowing carriers flexibility to offer a panopoly of new services to meet public demand.

#### IV. ONLY LIMITED TECHNICAL REGULATION IS MEEDED

NMCC supports the Commission's tentative conclusion that only limited technical regulation is needed to ensure adequate interference control and coordination. The fact that the propagation path in this system could be on the order of a football field in length would mitigate against the adverse effects of attenuation and obviate the need for stringent technical standards dictated by the Commission. As wired networks move towards broadband ISDN (B-ISDN), users will be able to receive fully integrated, interactive multi-media offerings from wireline carriers. NMCC's customers will naturally wish to have access on a wireline basis to the same set of services that they can receive from wireline service providers. In order for wireless carriers to provide video images as an integral part of their service offerings they will need access to a large block of new spectrum.

## V. THE REGULATORY REGIME ADOPTED BY THE COMMISSION WOULD PROMOTE OPEN AND FAIR COMPETITION

#### A. Eligibility

The Commission has concluded that any provider, including existing video distribution or telecommunications firms, should be allowed to construct and operate a 28 GHz system. NMCC supports this conclusion. As a wireless telecommunications

NPRM, para. 24.

<sup>&</sup>lt;sup>7</sup> NPRM, para. 33.

provider with a history of public service, NMCC would welcome the opportunity to provide 28GHz video services. NMCC could utilize its experience in constructing and operating a complex network infrastructure and in customer service to bring high quality wireless video services to the public in an expeditious manner.

NMCC, likewise, supports the Commission's tentative decision to limit applicants to those carriers ready, willing and able to provide service to the public. In addition, to discourage speculation in LMDS licenses, NMCC supports the Commission's proposal to bar licensees from transferring LMDS licenses until the system has been constructed and to impose a three-year construction requirement.

#### B. Common vs. Non-Common Carrier Status

NMCC supports the Commission's proposal to allow LMDS licensees to select common or non-common carrier status on a channel-by-channel and/or cell-by-cell basis. NMCC believes that the services provided on those channels should likewise be regulated on a case-by-case basis. If NMCC is licensed to provide LMDS service it should be permitted the flexibility to meet customer requirements through either common carrier or private offerings.9

. . . . .

NPRM, paras. 39 and 48.

NMCC's status as a telephone company affiliate should not preclude it from providing non-common carrier services provided that such services do not involve the resale of interconnected telephone service for profit. NPRM, para. 26 at fn. 10.

#### C. Service Areas

In the NPRM at Para. 30 the Commission likens LMDS service to personal communications services ("PCS") and proposes to license LMDS by the 487 Basic Trading Areas ("BTA") identified by Rand McNally. NMCC does not support BTAs as the appropriate PCS market structure. 10 However, even if the Commission adopts BTA's for PCS, NMCC believes that the Commission should not license LMDS as if it were PCS service. Since LMDS is likely to compete with cable TV, it should be licensed with market areas similar to those used by cable TV providers. Cable TV serving areas are typically smaller than Basic Trading Areas and are more analogous to MSA's and RSA's than to BTA's. Indeed, CATV markets are defined by cities and towns. MSA's and RSA's are the smallest administrative units with which the Commission and the industry are familiar and are the closest market definitions to cities and towns.

#### D. License Term

NMCC believes that a five-year license is too short for carriers to recover the substantial capital costs necessary to build and operate an LMDS system. For example, Suite 12 has estimated the cost to construct an LMDS cell site was \$200,000 and that their cell site covers a three mile radius. Based on Suite 12's figures, the cost to construct a LMDS network that

NYNEX Corporation opposed basic trading areas as a market definition for PCS in Docket No. 90-314. In their comments, NYNEX stated that an MSA/RSA market structure would ensure more widespread deployment of PCS in both Metropolitan and rural areas.

would serve the New York MSA would cost in excess of 30 million dollars. In addition, in an urban setting such as Manhattan, passive reflectors would need to be installed to reach shadowed areas; adding to the necessary capital costs. In order to incent carriers to make investments of this size, NMCC believes that LMDS should be licensed on ten-year terms and should be afforded a renewal expectancy.

#### E. Selection Process

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Because of the cost and administrative burden of conducting the comparative hearing process, the Commission suggests the use of lottery (random selection) or competitive bidding. NMCC continues to believe that an expedited comparative hearing process would ensure that licensees are committed to the provision of LMDS service, rather than speculation. However, if authority is provided by Congress, NMCC could also support a carefully controlled auction process in which applicants who could pass rigorous financial, managerial and technical qualifications criteria were permitted to bid for LMDS spectrum.

<sup>11</sup> See NYNEX Comments in CC Docket 90-314, Nov. 9, 1992.

### VI. CONCLUSION

For the reasons set forth above, NMCC supports the Commission's proposal to reallocate the 28GHz spectrum band for LMDS service as modified herein.

Respectfully submitted,

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March 16, 1993

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